

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of	)	MAIL STOP AF
	)	
Dietmar LERCHE et al.	)	Group Art Unit: 2857
	)	
Application No.: 10/591,701	)	Examiner: Mischita L. Henson
	)	
Filing Date: July 9, 2007	)	Confirmation No.: 2957
	)	
Title: METHOD AND DEVICE FOR	)	
CHARACTERIZATION OF	)	
MULTIPLE SAMPLES OF ONE OR	)	
VARIOUS DISPERSIONS	)	

**PRE-APPEAL BRIEF CONFERENCE REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Appellants respectfully request a Pre-Appeal Brief Conference to seek further review of the above-identified application. No amendments are being filed with this Request. A Notice of Appeal is being concurrently filed with this Request.

For at least the following reasons, it is submitted that the rejections set forth in the Final Official Action dated October 29, 2010, are clearly improper and without basis.

**REMARKS**

At the outset, Applicants respectfully note that while the Office Action Summary of the Final Official Action indicates that claims 34 and 35 have been rejected, the Final Official Action does not set forth any rejection of such claims. For at least this reason, withdrawal of the finality of the rejection and substantive examination of claims 34 and 35, are respectfully requested.

In the Final Official Action, claims 1-10, 17, 21-26 and 28 stand rejected under 35 U.S.C. §101. Withdrawal of this rejection is respectfully requested for at least the following reasons.

The Examiner has alleged that "claim 1 only recites a method that includes steps that could be purely mental". See Final Official Action at page 2. Claim 1 recites "during the segregation, repeatedly determining and recording momentary transmission values  $I_T(t, r)$ ...characterizing a current segregation status of the sample using waves irradiated with intensity values  $I_0(t, r)$  as a function of a position  $r$  within the sample at a time  $t$ ". The recited determining of momentary transmission values  $I_T(t, r)$  is not a step that is capable of being conducted purely mentally. Moreover, claim 1 recites the use of a measuring device. Accordingly, withdrawal of the §101 rejection is respectfully requested.

Claims 11, 13 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,638,172 (*Alsmeyer et al*). Withdrawal of this rejection is respectfully requested for at least the following reasons.

*Alsmeyer et al* does not disclose a spectrometric measurement device which measures radiation intensity scattered or transmitted by a dispersion sample over a partial or entire length of the sample, simultaneously for multiple positions of the sample, as recited in claim 11. Nor does *Alsmeyer et al* disclose that the spectrometric measurement device provides a radiation intensity measurement for each of the multiple positions at which a measurement is taken, as recited in claim 11.

In the Response to Arguments at page 17 of the Final Official Action, the Examiner has alleged that "*Alsmeyer et al*. teaches the sample is irradiated by radiation from a laser along the axis of the tube (column 5 lines 20-24), Examiner interprets along the axis of the tube to be multiple positions of  $r$ , therefore *Alsmeyer et al*. teaches simultaneous for multiple position." Applicants respectfully submit that the Examiner's interpretation of such disclosure of *Alsmeyer et al* is untenable.

The excerpt of *Alsmeyer et al* relied upon by the Patent Office is a description of the Raman spectrometer disclosed in U.S. Patent No. 3,556,659 (*Hawes*). See *Alsmeyer et al* at

col. 5, lines 19-22. *Hawes* discloses a "Raman spectrometer in which a laser output beam having a very small diameter is projected **along the length** of a capillary sample cell, rather than being projected in a transverse direction. The beam is **substantially coaxial with the cell** and the resultant Raman travelling in the general direction of the cell axis is detected. [Emphases added.]" See *Hawes* at col. 1, lines 12-18. From *Hawes*, it is clear that the irradiation "along the axis of the tube" disclosed by *Alsmeyer et al* does not refer to simultaneous measurement for multiple positions of the sample, as suggested by the Examiner. Rather, the irradiation "along the axis of the tube" describes the mode of operation of the *Hawes* Raman spectrometer, in which a laser is projected in a direction which runs along the length of the sample cell.

Furthermore, the Examiner has relied on *Alsmeyer et al* for disclosing "simultaneously irradiating . . . a reference material and a chemical composition". See Final Official Action at page 4 and *Alsmeyer et al* at col. 3, lines 34-37 and Figure 2. In claim 1, however, radiation intensity simultaneously is measured for multiple positions of the sample. That is, the multiple positions at which radiation intensity measurements are taken **are of the same sample**. *Alsmeyer et al* discloses the simultaneous measurement of two separate samples, i.e., a reference material and a chemical composition. See Amendment filed August 16, 2010 at page 12.

The Examiner has also relied on *Alsmeyer et al* for disclosing "simultaneously acquiring at more than one wavelength convolved Raman spectra of the reference material and the chemical composition". See Final Official Action at page 4 and *Alsmeyer et al* at abstract and col. 3, lines 40-43. Such disclosure of *Alsmeyer et al* pertains to simultaneously acquiring at more than one **wavelength** convolved Raman spectra. Such disclosure does not relate to the measurement of radiation intensity simultaneously for multiple **positions of the sample**. Nor is there any disclosure that such device provides a radiation intensity measurement for each of the multiple positions at which a measurement is taken. See Amendment filed August 16, 2010 at pages 12-13.

*Alsmeyer et al* fails to constitute an anticipation of independent claim 11. Accordingly, withdrawal of the §102(b) rejection is respectfully requested.

Claims 1, 2 and 17 stand rejected under 35 U.S.C. §103(a) as being obvious over *Alsmeyer et al*, in view of U.S. Patent Application Publication No. 2005/0275837 (*Zhang et al*) and U.S. Patent No. 5,095,451 (*Allen*). Claim 12 stands rejected under 35 U.S.C. §102(b)

as being anticipated by *Alsmeyer et al* in view of U.S. Patent No. 3,932,131 (*Rolfo-Fontana*).<sup>1</sup> Claims 15 and 16 stand rejected under 35 U.S.C. §103(a) as being obvious over *Alsmeyer et al*, in view of *Allen*. Claims 29-33 stand rejected under 35 U.S.C. §103(a) as being obvious over *Alsmeyer et al*, in view of *Zhang et al*. Claim 19 stands rejected under 35 U.S.C. §103(a) as being obvious over *Alsmeyer et al*, in view of *Zhang et al*, and further in view of Official Notice. Withdrawal of these rejections is respectfully requested for at least the following reasons.

*Alsmeyer et al* does not disclose or suggest each feature recited in independent claim 1. For example, *Alsmeyer et al* does not disclose or suggest repeatedly determining and recording momentary transmission values  $I_T(t, r)$ , and optionally scattering values  $I_S(t, r)$ , characterizing a current segregation status of the sample using waves radiated with intensity values  $I_o(t, r)$  as a function of a position  $r$  within the sample at a time  $t$ , for one or more wavelengths over at least a partial section of the sample, simultaneously for multiple positions  $r$ , as recited in claim 1. See Amendment filed August 16, 2010 at pages 13-14.

Furthermore, *Alsmeyer et al* does not disclose or suggest each feature recited in independent claim 29. For example, *Alsmeyer et al* does not disclose or suggest detecting transmission values  $I_T(t, r)$  and/or scattering values  $I_S(t, r)$  of the sample, simultaneously for multiple positions  $r$ . For each of such multiple positions at which detection occurs, a transmission and/or scattering value is detected. *Alsmeyer et al* clearly has no disclosure or suggestion of such feature. See Amendment filed August 16, 2010 at pages 14-15.

In the Response to Arguments at pages 17-18 of the Final Official Notice, the Examiner states "See above", presumably referring to the rationale relied upon for maintaining the rejection of claim 11. As discussed above, however, the Examiner's interpretation that *Alsmeyer et al*'s disclosure of "along the axis of the tube" refers to multiple positions  $r$  of the sample, is untenable. The excerpt of *Alsmeyer et al* relied upon by the Patent Office is a description of the Raman spectrometer disclosed in U.S. Patent No. 3,556,659 (*Hawes*). See *Alsmeyer et al* at col. 5, lines 19-22. *Hawes* discloses a "Raman spectrometer in which a laser output beam having a very small diameter is projected **along the length** of a capillary sample cell, rather than being projected in a transverse direction. The beam is **substantially coaxial with the cell** and the resultant Raman travelling in the

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<sup>1</sup> In view of the Examiner's allegation at page 10 of the Official Action that it would have been obvious to combine *Rolfo-Fontana* and *Allen* with *Alsmeyer et al* and Official Notice, it appears that the Examiner intended to make such rejection under 35 U.S.C. §103(a).

general direction of the cell axis is detected. [Emphases added.]" See *Hawes* at col. 1, lines 12-18. From *Hawes*, it is clear that the irradiation "along the axis of the tube" disclosed by *Alsmeyer et al* does not refer to simultaneous measurement for multiple positions of the sample, as suggested by the Examiner. Rather, the irradiation "along the axis of the tube" describes the mode of operation of the *Hawes* Raman spectrometer, in which a laser is projected in a direction which runs along the length of the sample cell.

As discussed above, *Alsmeyer et al*'s disclosure of "simultaneously irradiating . . . a reference material and a chemical composition" pertains to the measurement of two separate samples, i.e., a reference material and a chemical composition. Further, *Alsmeyer et al* disclosure of "simultaneously acquiring at more than one wavelength convolved Raman spectra of the reference material and the chemical composition", pertains to simultaneously acquiring at more than one **wavelength** convolved Raman spectra.

The secondary applied documents (i.e., *Zhang et al*, *Allen* and *Rolfo-Fontana*) and Official Notice fail to cure the above-described deficiencies of *Alsmeyer et al*. See Amendment filed August 16, 2010 at page 15.

For at least the above reasons, it is apparent that independent claims 1 and 29 are non-obvious. Accordingly, withdrawal of the §103(a) rejections is respectfully requested.

The Examiner has taken Official notice at page 9, lines 8-10 of the Final Official Action. The M.P.E.P. directs Examiners to avoid relying on Official notice in applications under final rejection, except under rare circumstances. See M.P.E.P. §2144.03. Here, the Examiner has taken Official notice despite the fact that the application is under final rejection. The Examiner has not explained why the taking of Official notice is warranted in this finally rejected application. Such taking of Official notice is improper and withdrawal thereof is respectfully requested.

No fee is believed to be due in connection with the filing of this paper. However, the Director is hereby authorized to charge any appropriate fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: April 29, 2011

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